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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/698,584	10/31/2003	Patrick J. Treado	E2079-00013	1644

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DUANE MORRIS LLP  
IP DEPARTMENT  
30 SOUTH 17TH STREET  
PHILADELPHIA, PA 19103-4196

EXAMINER
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PRITCHETT, JOSHUA L

ART UNIT	PAPER NUMBER
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2872

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/16/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

10/698,584

Applicant(s)

TREADO ET AL.

Examiner

Joshua L. Pritchett

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 05 December 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-16, 41 and 42 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-16, 41 and 42 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |                                                                                      |                                                                   |
|--------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____                                                          | 6) <input type="checkbox"/> Other: _____                          |

### DETAILED ACTION

This action is in response to Request for Continued Examination and Amendment filed December 5, 2006. Claims 1, 41 and 42 have been amended as requested by the applicant.

#### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-5, 9, 10, 12-16, 41 and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Batchelder (US 5,689,333) as evidenced by Rigler (US 2002/0114224) in view of Scott (US 6,822,228).

Regarding claims 1, 41 and 42, Batchelder teaches an apparatus comprising a light source (10) for illuminating a specimen (4; Fig. 1); light gathering optics for gather light reflected from the specimen (Fig. 1); an electronically tunable filter (84) for transmitting light of specific, selected wavelengths (Fig. 1; col. 4 lines 49-55); an image sensor (12) for sensing an image, the image sensor having a predetermined number of pixels (col. 8 lines 5-6); a computer (120), the computer being coupled to the electronically tunable filter and the image sensor (col. 4 lines 49-

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55; Fig. 1) software running on the computer (col. 10 line 53) tuning the electronically tunable filter to a specific wavelength or a series of specific wavelengths (col. 4 lines 49-55) and collecting and storing the intensity of the reflected light at each of the pixels for each of the specific wavelengths to which the electronically tunable filter is tuned (col. 10 lines 52-65; Figs. 4-6). Batchelder further teaches the use of the apparatus in fluorescent spectroscopy (col. 1 lines 13-18). Although Batchelder does not discuss the type of forensic specimen, the specimens listed in claims 1, 41 and 42 include specimens that can inherently be used in fluorescent spectroscopy. The inherency is shown by evidence in Rigler (US 2004/011424), which states that fluorescent spectroscopy can be used to examine body fluids (para. 0002). The oils that produce fingerprints can be considered bodily fluids. Blood, semen and saliva are also bodily fluids as are the pigments that color the body's skin. Further these different specimen have been disclosed as functional equivalents in the current specification. Still further the Batchelder reference teaches all the claimed structural limitations of the current invention and would therefore be able to perform any claimed functional limitation of the current invention including the type of specimen analyzed. Batchelder lacks reference to producing plural views with different wavelengths. Scott teaches producing plural views of the forensic sample (col. 1 lines 9-25) wherein one of the plural views are produced with different specific wavelengths (col. 14 lines 25-40) and forming composite image from the plural views wherein substantially all of the pixels in a first view are aligned with respective corresponding pixels in a second view (Fig. 10). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the Batchelder reference include the imaging process of Scott for the purpose of obtaining and viewing a distinctive transmission pattern for an unknown sample.

Regarding claim 2, Batchelder teaches the light source is incident to the specimen (Fig. 1).

Regarding claim 3, Batchelder teaches the light source emits a specific wavelength or range of wavelengths (col. 3 lines 50-67).

Regarding claim 4, Batchelder teaches the light gathering optics comprise a microscope lens (20).

Regarding claim 5, Batchelder teaches the light gathering optics comprise a macro lens (34).

Regarding claim 9, Batchelder teaches the image sensor is a two-dimensional imaging focal plane array (Fig. 8; col. 9 lines 20-22).

Regarding claim 10, Batchelder teaches the image sensor is a charge coupled device (Fig. 1).

Regarding claim 12, Batchelder teaches one or more mirrors for spatially directing the light reflected by the specimen (Fig. 1).

Regarding claim 13, Batchelder teaches an optical train disposed between the light gathering optical and the electronically tunable filter for matching the spatial characteristics of the light reflected by the specimen to the tunable filter (Fig. 1).

Regarding claim 14, Batchelder teaches a display device for rendering images and graphical representations of the specimen (Figs. 4-6).

Regarding claim 15, Batchelder teaches the software performs the function of composing an image for rendering on the display, the image composed of light reflected by the specimen at

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a specific wavelength or range of wavelengths to which the tunable filter has been tuned (col. 8 lines 58-60).

Regarding claim 16, Batchelder teaches the software performs the function of composing a graphical representation of the specimen, being a graph of intensity versus wavelength for specific pixels or groups of pixels (Figs. 4-6; col. 10 lines 50-65).

Claims 6-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Batchelder (US 5,689,333) as evidenced by Rigler (US 2004/0114224) in view of Scott (US 6,822,228) as applied to claim 1 further in view of Treado (US 6,002,476).

Batchelder as evidenced by Rigler teaches the invention as claimed including the use of tunable filter bandwidth ranges from  $5\text{ cm}^{-1}$  to 10 nm (Fig. 4). Batchelder lacks reference to liquid crystal tunable filters or acousto-optic tunable filters. Treado teaches the use of liquid crystal tunable filters (LCTF; 11 Fig. 1) and acousto-optic tunable filters (col. 1 lines 48-50). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the Batchelder tunable filter include either a liquid crystal tunable filter or an acousto-optic tunable filter for the purpose of accurately and precisely filtering desired bandwidths with known technology to yield predictable results.

Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Batchelder (US 5,689,333) as evidenced by Rigler (US 2004/0114224) in view of Scott (US 6,822,228) as applied to claim 1 further in view of Fillard (US 5,770,856).

Batchelder as evidenced by Rigler teaches the invention as claimed but lacks reference to a gallium arsenide detector. Fillard teaches the use of a gallium arsenide detector to collect light (col. 2 lines 55-56). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the Batchelder invention include the gallium arsenide detector of Fillard for the purpose of accurately and precisely collecting light with known technology to yield predictable results.

### ***Response to Arguments***

Applicant's arguments filed December 5, 2006 have been fully considered but they are not persuasive.

Applicant argues the Batchelder reference is incapable of forensic analysis because of image drift caused by changing the filters in the filter wheel. The applicant has not pointed out any part of the Batchelder reference that mentions image drift. Applicant appears to take the position that image drift is inherent in all filter wheels. Cochard (DE 4 031 753) states that it is possible to have a filter wheel without any static image drift (abstract). Therefore it is possible for the Batchelder reference to function without image drift and function as a forensic sample microscope.

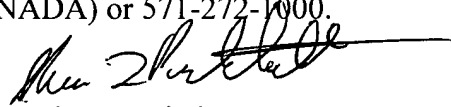
Applicant argues the Batchelder reference fails to teach or suggest the newly added claim limitations. The Scott reference has been added to teach the newly claimed limitations as stated in the rejection above.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joshua L. Pritchett whose telephone number is 571-272-2318. The examiner can normally be reached on Monday - Friday 7:00 - 3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Drew A. Dunn can be reached on 571-272-2312. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Joshua L Pritchett  
Examiner  
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